## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

KANDA, et al.

Serial No. 09/971,773

Filed: October 9, 2001

Atty. Ref.: 249-202

Group: Unassigned

Examiner: Unassigned

For: ANTIBODY COMPOSITION-PRODUCING CELL

August 30, 2002

**Assistant Commissioner for Patents** Washington, DC 20231

Sir:

# **STATEMENT**

The attached paper and computer readable copies of the Sequence Listing are the same. No new matter has been added.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:

Reg. No. 36,663

BJS:plb

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125

Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys Lys Leu Glu Gly Asn Glu
130 135 140

Leu Gln Arg His Ala Asp Glu Ile Leu Leu Asp Leu Gly His His Glu 145 150 155 160

Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln Thr Asp Gly Ala 165 170 175

Gly Glu Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr Glu Leu Val Gln
180 185 190

Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys Ser Lys Ala Arg 195 200 205

Lys Leu Val Cys Asn Ile Asn Lys Gly Cys Gly Tyr Gly Cys Gln Leu 210 215 220

His His Val Val Tyr Cys Phe Met Ile Ala Tyr Gly Thr Gln Arg Thr 225 230 235 240

Leu Ile Leu Glu Ser Gln Asn Trp Arg Tyr Ala Thr Gly Gly Trp Glu 245 250 255

Thr Val Phe Arg Pro Val Ser Glu Thr Cys Thr Asp Arg Ser Gly Leu 260 265 270

Ser Thr Gly His Trp Ser Gly Glu Val Lys Asp Lys Asn Val Gln Val 275 280 285

Val Glu Leu Pro Ile Val Asp Ser Leu His Pro Arg Pro Pro Tyr Leu 290 295 300

Pro Leu Ala Val Pro Glu Asp Leu Ala Asp Arg Leu Leu Arg Val His 305 310 315

Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val Lys Tyr Leu Ile 325 330 335

Arg Pro Gln Pro Trp Leu Glu Arg Glu Ile Glu Glu Thr Thr Lys Lys 340 345 350

Leu Gly Phe Lys His Pro Val Ile Gly Val His Val Arg Arg Thr Asp 355 360 365

Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu Glu Tyr Met Val 370 375 380

His Val Glu Glu His Phe Gln Leu Leu Glu Arg Arg Met Lys Val Asp 385 390 395 400

Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Ser Leu Leu Lys Glu
405 410 415

Ala Lys Thr Lys Tyr Ser Asn Tyr Glu Phe Ile Ser Asp Asn Ser Ile 420 425 430 Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu Asn Ser Leu Arg

Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala Asp Phe Leu Val 450 455 460

Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr Glu Ile Met Gln 465 470 475 480

Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser Leu Asp Asp Ile
485
490
495

Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile Ala Val Tyr Pro 500 505 510

His Gln Pro Arg Thr Lys Glu Glu Ile Pro Met Glu Pro Gly Asp Ile 515 520 525

Ile Gly Val Ala Gly Asn His Trp Asn Gly Tyr Ser Lys Gly Val Asn 530 535 540

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Lys Leu Glu Arg Leu Lys Gln Gln Asn Glu Asp Leu Arg Arg Met Ala 50 55 60

Glu Ser Leu Arg Ile Pro Glu Gly Pro Ile Asp Gln Gly Thr Ala Thr 65 70 75 80

Gly Arg Val Arg Val Leu Glu Glu Gln Leu Val Lys Ala Lys Glu Gln
85 90 95

Ile Glu Asn Tyr Lys Lys Gln Ala Arg Asn Gly Leu Gly Lys Asp His 100 105 110



Glu Ile Leu Arg Arg Arg Ile Glu Asn Gly Ala Lys Glu Leu Trp Phe 115 120 125

Phe Leu Gln Ser Glu Leu Lys Lys Leu Lys His Leu Glu Gly Asn Glu 130 135 140

Leu Gln Arg His Ala Asp Glu Ile Leu Leu Asp Leu Gly His His Glu 145 150 155 160

Arg Ser Ile Met Thr Asp Leu Tyr Tyr Leu Ser Gln Thr Asp Gly Ala 165 170 175

Gly Asp Trp Arg Glu Lys Glu Ala Lys Asp Leu Thr Glu Leu Val Gln
180 185 190

Arg Arg Ile Thr Tyr Leu Gln Asn Pro Lys Asp Cys Ser Lys Ala Arg 195 200 205

Lys Leu Val Cys Asn Ile Asn Lys Gly Cys Gly Tyr Gly Cys Gln Leu 210 215 220

His His Val Val Tyr Cys Phe Met Ile Ala Tyr Gly Thr Gln Arg Thr 225 230 235 240

Leu Ile Leu Glu Ser Gln Asn Trp Arg Tyr Ala Thr Gly Gly Trp Glu 245 250 255

Thr Val Phe Arg Pro Val Ser Glu Thr Cys Thr Asp Arg Ser Gly Leu 260 265 270

Ser Thr Gly His Trp Ser Gly Glu Val Asn Asp Lys Asn Ile Gln Val 275 280 285

Val Glu Leu Pro Ile Val Asp Ser Leu His Pro Arg Pro Pro Tyr Leu 290 295 300

Pro Leu Ala Val Pro Glu Asp Leu Ala Asp Arg Leu Leu Arg Val His 305 310 315 320

Gly Asp Pro Ala Val Trp Trp Val Ser Gln Phe Val Lys Tyr Leu Ile 325 330 335

Arg Pro Gln Pro Trp Leu Glu Lys Glu Ile Glu Glu Ala Thr Lys Lys 340 345 350

Leu Gly Phe Lys His Pro Val Ile Gly Val His Val Arg Arg Thr Asp 355 360 365

Lys Val Gly Thr Glu Ala Ala Phe His Pro Ile Glu Glu Tyr Met Val 370 375 380

His Val Glu Glu His Phe Gln Leu Leu Ala Arg Arg Met Gln Val Asp 385 390 395 400

Lys Lys Arg Val Tyr Leu Ala Thr Asp Asp Pro Thr Leu Leu Lys Glu 405 410 415

Ala Lys Thr Lys Tyr Ser Asn Tyr Glu Phe Ile Ser Asp Asn Ser Ile 420 425 430

Ser Trp Ser Ala Gly Leu His Asn Arg Tyr Thr Glu Asn Ser Leu Arg 435 440 445

Gly Val Ile Leu Asp Ile His Phe Leu Ser Gln Ala Asp Phe Leu Val 450 455 460

Cys Thr Phe Ser Ser Gln Val Cys Arg Val Ala Tyr Glu Ile Met Gln 465 470 475 480

Thr Leu His Pro Asp Ala Ser Ala Asn Phe His Ser Leu Asp Asp Ile 485 490 495

Tyr Tyr Phe Gly Gly Gln Asn Ala His Asn Gln Ile Ala Val Tyr Pro 500 505 510

His Lys Pro Arg Thr Glu Glu Glu Ile Pro Met Glu Pro Gly Asp Ile 515 520 525

Ile Gly Val Ala Gly Asn His Trp Asp Gly Tyr Ser Lys Gly Ile Asn 530 535 540

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20 25 30

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			_	_			_	_			_	-		tat Tyr		480
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ttc atg cac att gga aag acc att gtg tgg gaa gga aag aat gaa aa Phe Met His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu As 290 295 300										
gaa gtg ggc aga tgt aaa gag acc ggc aaa att cat gtg act gtg ga Glu Val Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val As 305 310 315 32	p									
ctg aaa tac tac cga cca act gaa gtg gac ttc ctg cag gga gac tg Leu Lys Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cy 325 330 335										
tcc aag gcg cag cag aaa ctg aac tgg aag ccc cgc gtt gcc ttt ga Ser Lys Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe As 340 345 350										
gag ctg gtg agg gag atg gtg caa gcc gat gtg gag ctc atg aga ac Glu Leu Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Th 355 360 365										
aac ccc aac gcc tga gcacctctac aaaaaaattc gcgagacatg gactatggt Asn Pro Asn Ala 370	g 1159									
cagagccagc caaccagagt ccagccactc ctgagaccat cgaccataaa ccctcgactg 1 cctgtgtcgt ccccacagct aagagctggg ccacaggttt gtgggcacca ggacggggac 1 actccagagc taaggccact tcgcttttgt caaaggctcc tctcaatgat tttgggaaat 1 caagaagttt aaaatcacat actcatttta cttgaaatta tgtcactaga caacttaaat 1 ttttgagtct tgagattgtt tttctctttt cttattaaat gatctttcta tgacccagca 1 aaaaaaaaaa aaaaaaggga tataaaaaaa aaaaaaaa										
<210> 66 <211> 25 <212> DNA <213> Artificial Sequence										
<220> <223> Description of Artificial Sequence: Synthetic DNA										
<pre>&lt;400&gt; 66 atgaagttgc actatggtga cctca 25</pre>										

<210> 67 <211> 59 <212> DNA <213> Cricetulus griseus

<400> 67 ccgacagcac ctgcctagta aaaatcatca atgaagtcaa acctacagag atctacaat 59 <210> 68 <211> 25 <212> DNA <213> Artificial Sequence <223> Description of Artificial Sequence: Synthetic DNA <400> 68 25 gacttagcag agtacactgc agatg <210> 69 <211> 25 <212> DNA <213> Artificial Sequence <220> <223> Description of Artificial Sequence: Synthetic DNA <400> 69 accttggata gaaaggggtg gtctc 25 <210> 70 <211> 125 <212> DNA <213> Cricetulus griseus <400> 70 ttgatggagt tggcaccttg cggcttctgg atgcaattaa gacttgtggc cttataaatt 60 ctgtgaagtt ctaccaggcc tcaactagtg aactgtatgg aaaagtgcaa gaaatacccc 120 agaaa <210> 71 <211> 372 <212> PRT <213> Cricetulus griseus Met Ala His Ala Pro Ala Ser Cys Pro Ser Ser Arg Asn Ser Gly Asp 5 10 Gly Asp Lys Gly Lys Pro Arg Lys Val Ala Leu Ile Thr Gly Ile Thr 25 Gly Gln Asp Gly Ser Tyr Leu Ala Glu Phe Leu Leu Glu Lys Gly Tyr 35 Glu Val His Gly Ile Val Arg Arg Ser Ser Phe Asn Thr Gly Arg 55 50 60



Ile Glu His Leu Tyr Lys Asn Pro Gln Ala His Ile Glu Gly Asn Met Lys Leu His Tyr Gly Asp Leu Thr Asp Ser Thr Cys Leu Val Lys Ile Ile Asn Glu Val Lys Pro Thr Glu Ile Tyr Asn Leu Gly Ala Gln Ser His Val Lys Ile Ser Phe Asp Leu Ala Glu Tyr Thr Ala Asp Val Asp 120 Gly Val Gly Thr Leu Arg Leu Leu Asp Ala Ile Lys Thr Cys Gly Leu 135 Ile Asn Ser Val Lys Phe Tyr Gln Ala Ser Thr Ser Glu Leu Tyr Gly 150 145 Lys Val Gln Glu Ile Pro Gln Lys Glu Thr Thr Pro Phe Tyr Pro Arg Ser Pro Tyr Gly Ala Ala Lys Leu Tyr Ala Tyr Trp Ile Val Val Asn 190 Phe Arg Glu Ala Tyr Asn Leu Phe Ala Val Asn Gly Ile Leu Phe Asn His Glu Ser Pro Arg Arg Gly Ala Asn Phe Val Thr Arg Lys Ile Ser Arg Ser Val Ala Lys Ile Tyr Leu Gly Gln Leu Glu Cys Phe Ser Leu 225 Gly Asn Leu Asp Ala Lys Arg Asp Trp Gly His Ala Lys Asp Tyr Val 250 Glu Ala Met Trp Leu Met Leu Gln Asn Asp Glu Pro Glu Asp Phe Val Ile Ala Thr Gly Glu Val His Ser Val Arg Glu Phe Val Glu Lys Ser 275 Phe Met His Ile Gly Lys Thr Ile Val Trp Glu Gly Lys Asn Glu Asn Glu Val Gly Arg Cys Lys Glu Thr Gly Lys Ile His Val Thr Val Asp 310 315 320 Leu Lys Tyr Tyr Arg Pro Thr Glu Val Asp Phe Leu Gln Gly Asp Cys 330 Ser Lys Ala Gln Gln Lys Leu Asn Trp Lys Pro Arg Val Ala Phe Asp 345 Glu Leu Val Arg Glu Met Val Gln Ala Asp Val Glu Leu Met Arg Thr 365



### Asn Pro Asn Ala 370

<210> 72

<211> 321

<212> PRT

<213> Cricetulus griseus

<400> 72

Met Gly Glu Pro Gln Gly Ser Arg Arg Ile Leu Val Thr Gly Gly Ser 1 5 10 15

Gly Leu Val Gly Arg Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
20 25 30

Leu Pro Gly Glu Glu Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
35 40 45

Thr Asp Ala Ala Gln Thr Gln Ala Leu Phe Gln Lys Val Gln Pro Thr
50 55 60

His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65 70 75 80

Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Ile Asn Asp Asn 85 90 95

Val Leu His Ser Ala Phe Glu Val Gly Thr Arg Lys Val Val Ser Cys 100 105 110

Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu 115 120 125

Thr Met Ile His Asn Gly Pro Pro His Ser Ser Asn Phe Gly Tyr Ser 130 135 140

Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln 145 150 155 160

His Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro 165 170 175

His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile 180 185 190

His Lys Val His Leu Ala Lys Ser Asn Gly Ser Ala Leu Thr Val Trp
195 200 205

Gly Thr Gly Lys Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala 210 215 220

Arg Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile 225 230 235 240

Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala



245 250 255

Glu Ala Val Val Glu Ala Met Asp Phe Cys Gly Glu Val Thr Phe Asp
260 265 270

Ser Thr Lys Ser Asp Gly Gln Tyr Lys Lys Thr Ala Ser Asn Gly Lys 275 280 285

Leu Arg Ala Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala 290 295 300

Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg 305 310 315 320

Lys

<210> 73

<211> 590

<212> PRT

<213> Cricetulus griseus

<400> 73

Met Ala Ser Leu Arg Glu Ala Ser Leu Arg Lys Leu Arg Arg Phe Ser 1 5 10 15

Glu Met Arg Gly Lys Pro Val Ala Thr Gly Lys Phe Trp Asp Val Val
20 25 30

Val Ile Thr Ala Ala Asp Glu Lys Gln Glu Leu Ala Tyr Lys Gln Gln
35 40 45

Leu Ser Glu Lys Leu Lys Arg Lys Glu Leu Pro Leu Gly Val Asn Tyr 50 55 60

His Val Phe Thr Asp Pro Pro Gly Thr Lys Ile Gly Asn Gly Gly Ser
65 70 75 80

Thr Leu Cys Ser Leu Gln Cys Leu Glu Ser Leu Tyr Gly Asp Lys Trp 85 90 95

Asn Ser Phe Thr Val Leu Leu Ile His Ser Gly Gly Tyr Ser Gln Arg 100 105 110

Leu Pro Asn Ala Ser Ala Leu Gly Lys Ile Phe Thr Ala Leu Pro Leu 115 120 125

Gly Glu Pro Ile Tyr Gln Met Leu Asp Leu Lys Leu Ala Met Tyr Met 130 135 140

Asp Phe Pro Ser Arg Met Lys Pro Gly Val Leu Val Thr Cys Ala Asp 145 150 155 160

Asp Ile Glu Leu Tyr Ser Ile Gly Asp Ser Glu Ser Ile Ala Phe Glu 165 170 175

Gln Pro Gly Phe Thr Ala Leu Ala His Pro Ser Ser Leu Ala Val Gly

**0**0

180

185 190

Thr Thr His Gly Val Phe Val Leu Asp Ser Ala Gly Ser Leu Gln His 200 Gly Asp Leu Glu Tyr Arg Gln Cys His Arg Phe Leu His Lys Pro Ser 215 Ile Glu Asn Met His His Phe Asn Ala Val His Arg Leu Gly Ser Phe 230 Gly Gln Gln Asp Leu Ser Gly Gly Asp Thr Thr Cys His Pro Leu His Ser Glu Tyr Val Tyr Thr Asp Ser Leu Phe Tyr Met Asp His Lys Ser 260 Ala Lys Lys Leu Leu Asp Phe Tyr Glu Ser Val Gly Pro Leu Asn Cys 280 Glu Ile Asp Ala Tyr Gly Asp Phe Leu Gln Ala Leu Gly Pro Gly Ala 290 295 Thr Ala Glu Tyr Thr Lys Asn Thr Ser His Val Thr Lys Glu Glu Ser 310 His Leu Leu Asp Met Arg Gln Lys Ile Phe His Leu Leu Lys Gly Thr 330 325 Pro Leu Asn Val Val Leu Asn Asn Ser Arg Phe Tyr His Ile Gly 340 Thr Thr Glu Glu Tyr Leu Leu His Phe Thr Ser Asn Gly Ser Leu Gln 360 Ala Glu Leu Gly Leu Gln Ser Ile Ala Phe Ser Val Phe Pro Asn Val 380 Pro Glu Asp Ser His Glu Lys Pro Cys Val Ile His Ser Ile Leu Asn 385 390 Ser Gly Cys Cys Val Ala Pro Gly Ser Val Val Glu Tyr Ser Arg Leu 410 Gly Pro Glu Val Ser Ile Ser Glu Asn Cys Ile Ile Ser Gly Ser Val 430 420 Ile Glu Lys Ala Val Leu Pro Pro Cys Ser Phe Val Cys Ser Leu Ser 435 Val Glu Ile Asn Gly His Leu Glu Tyr Ser Thr Met Val Phe Gly Met 455 Glu Asp Asn Leu Lys Asn Ser Val Lys Thr Ile Ser Asp Ile Lys Met 470 475 480 465 Leu Gln Phe Phe Gly Val Cys Phe Leu Thr Cys Leu Asp Ile Trp Asn

Leu Lys Ala Met Glu Glu Leu Phe Ser Gly Ser Lys Thr Gln Leu Ser Leu Trp Thr Ala Arg Ile Phe Pro Val Cys Ser Ser Leu Ser Glu Ser Val Ala Ala Ser Leu Gly Met Leu Asn Ala Ile Arg Asn His Ser Pro Phe Ser Leu Ser Asn Phe Lys Leu Leu Ser Ile Gln Glu Met Leu Leu Cys Lys Asp Val Gly Asp Met Leu Ala Tyr Arg Glu Gln Leu Phe Leu Glu Ile Ser Ser Lys Arg Lys Gln Ser Asp Ser Glu Lys Ser